1. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b.

$$(4, -10) \text{ and } (-10, 4)$$

A. $m \in [-3.2, -0.3]$ $b \in [4, 12]$

B. $m \in [-3.2, -0.3]$ $b \in [-12, -3]$

C. $m \in [0.8, 1.1]$ $b \in [10, 18]$

D. $m \in [-3.2, -0.3]$ $b \in [10, 18]$

E. $m \in [-3.2, -0.3]$ $b \in [-15, -11]$

2. Solve the equation below. Then, choose the interval that contains the solution.
$$-16(-11x + 2) = -5(17x - 18)$$

A. $x \in [-0.38, -0.21]$

B. $x \in [0.46, 0.71]$

C. $x \in [-1.16, -0.56]$

D. $x \in [-0.07, 0.29]$

E. There are no real solutions.

3. Solve the equation below. Then, choose the interval that contains the solution.
$$-9(3x - 19) = -12(7x - 18)$$

A. $x \in [0.4, 0.9]$

B. $x \in [4.7, 7]$

C. $x \in [-8.5, -6.5]$

D. $x \in [2.8, 3.8]$

E. There are no real solutions.

4. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b.

$$(-8, 11) \text{ and } (-3, -8)$$

A. $m \in [3.8, 4.8]$ $b \in [3.27, 3.59]$

B. $m \in [-11.8, -1.8]$ $b \in [19.25, 19.6]$

C. $m \in [-11.8, -1.8]$ $b \in [-5.52, -4.94]$

D. $m \in [-11.8, -1.8]$ $b \in [18.55, 19.3]$

E. $m \in [-11.8, -1.8]$ $b \in [-19.71, -19.2]$

5. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Perpendicular to $8x + 7y = 6$ and passing through the point $(4, 5)$.

A. $m \in [0.83, 1]$ $b \in [1.41, 2.39]$

B. $m \in [-0.9, -0.74]$ $b \in [8.16, 8.58]$

C. $m \in [0.83, 1]$ $b \in [-1.77, -1.45]$

D. $m \in [0.83, 1]$ $b \in [0.58, 1.29]$

E. $m \in [0.98, 1.25]$ $b \in [1.41, 2.39]$

6. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.
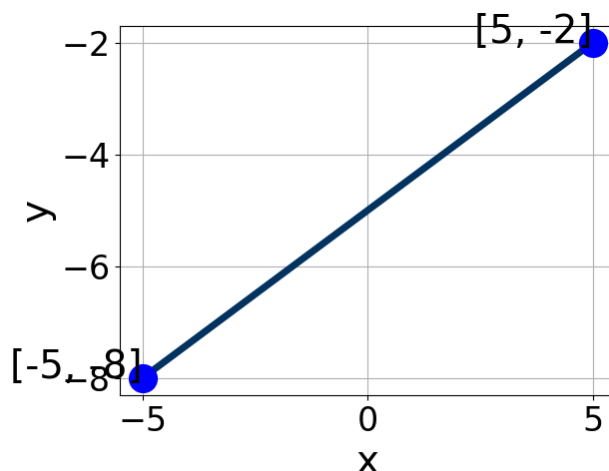
A. $A \in [-2.7, 1.1]$, $B \in [-4.6, 0.3]$, and $C \in [1, 7]$

B. $A \in [2.5, 5]$, $B \in [3.8, 5.1]$, and $C \in [-31, -22]$

C. $A \in [2.5, 5]$, $B \in [-6, -1.5]$, and $C \in [23, 28]$

D. $A \in [-4.8, -2.7]$, $B \in [3.8, 5.1]$, and $C \in [-31, -22]$

E. $A \in [-2.7, 1.1]$, $B \in [0.9, 2.6]$, and $C \in [-7, -4]$

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7. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{3x + 6}{8} - \frac{-3x - 8}{5} = \frac{9x + 5}{7}$$

A. $x \in [27.97, 30.97]$

B. $x \in [5.26, 6.26]$

C. $x \in [-0.45, 1.55]$

D. $x \in [-8.03, -4.03]$

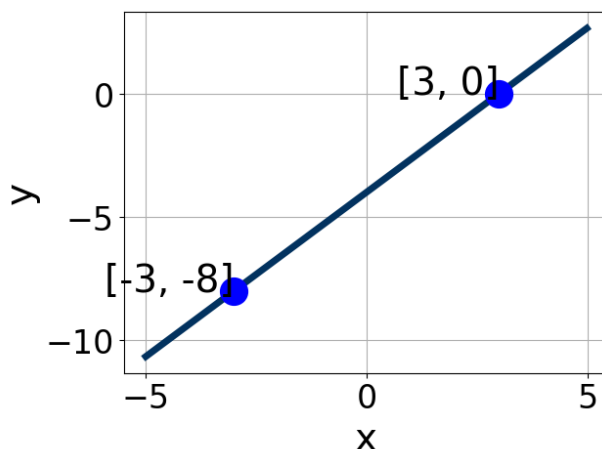E. There are no real solutions.

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8. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{4x + 9}{3} - \frac{-9x + 3}{7} = \frac{5x - 4}{2}$$

A. $x \in [-5.57, 0.43]$

B. $x \in [-84, -80]$

C. $x \in [-41.4, -36.4]$

D. $x \in [-45.6, -43.6]$

E. There are no real solutions.

---

9. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain A, B, and C.

A. $A \in [-2.2, 0.8]$, $B \in [-0.09, 1.58]$, and $C \in [-7, -3]$

B. $A \in [-4.6, -2.6]$, $B \in [1.71, 3.62]$, and $C \in [-13, -10]$

C. $A \in [1.9, 4.6]$, $B \in [-3.18, -2.15]$, and $C \in [12, 16]$

D. $A \in [-2.2, 0.8]$, $B \in [-1.34, -0.92]$, and $C \in [0, 9]$

E. $A \in [1.9, 4.6]$, $B \in [1.71, 3.62]$, and $C \in [-13, -10]$

---

10. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Perpendicular to $3x + 8y = 4$ and passing through the point $(4, -10)$.

A. $m \in [2.5, 4.8]$ $b \in [-16, -9]$

B. $m \in [2.5, 4.8]$ $b \in [-23.67, -19.67]$

C. $m \in [-0.5, 2.6]$ $b \in [-23.67, -19.67]$

D. $m \in [2.5, 4.8]$ $b \in [17.67, 22.67]$

E. $m \in [-5.3, -1.6]$ $b \in [-1.33, 3.67]$

---

11. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals that contain m and b.

$$(10, 9) \text{ and } (2, -4)$$

A. $m \in [1.62, 7.62]$ $b \in [-7.32, -6.9]$

B. $m \in [1.62, 7.62]$ $b \in [-6.14, -5.46]$

C. $m \in [1.62, 7.62]$ $b \in [6.74, 7.29]$

D. $m \in [-4.62, -0.62]$ $b \in [-0.91, 0.3]$

E. $m \in [1.62, 7.62]$ $b \in [-1.54, -0.91]$

---

12. Solve the equation below. Then, choose the interval that contains the solution.
$$-11(15x + 4) = -7(2x + 18)$$

A. $x \in [1.1, 1.29]$

B. $x \in [-0.99, -0.75]$

C. $x \in [-1.81, -1.09]$

D. $x \in [0.54, 0.79]$

E. There are no real solutions.

---

13. Solve the equation below. Then, choose the interval that contains the solution.
$$-8(-9x - 19) = -16(2x + 11)$$

A. $x \in [-0.37, 0.13]$

B. $x \in [0.17, 0.39]$

C. $x \in [0.53, 1.1]$

D. $x \in [-3.47, -3.09]$

E. There are no real solutions.

---

14. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals that contain m and b.

$$(7, -3) \text{ and } (-8, -11)$$

A. $m \in [-0.94, 0.53]$ $b \in [-17.27, -11.27]$

B. $m \in [0.52, 0.71]$ $b \in [-13, -8]$

C. $m \in [0.52, 0.71]$ $b \in [-5, 3]$

D. $m \in [0.52, 0.71]$ $b \in [2.73, 8.73]$

E. $m \in [0.52, 0.71]$ $b \in [-7.73, -3.73]$

---

15. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Parallel to $4x + 9y = 11$ and passing through the point $(-2, -8)$.

A. $m \in [-0.68, -0.35]$ $b \in [8.15, 10.53]$

B. $m \in [-2.63, -2.21]$ $b \in [-9.38, -8.49]$

C. $m \in [-0.68, -0.35]$ $b \in [-6.29, -5.34]$

D. $m \in [-0.68, -0.35]$ $b \in [-9.38, -8.49]$

E. $m \in [0.21, 1.07]$ $b \in [-7.77, -6.24]$

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16. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.
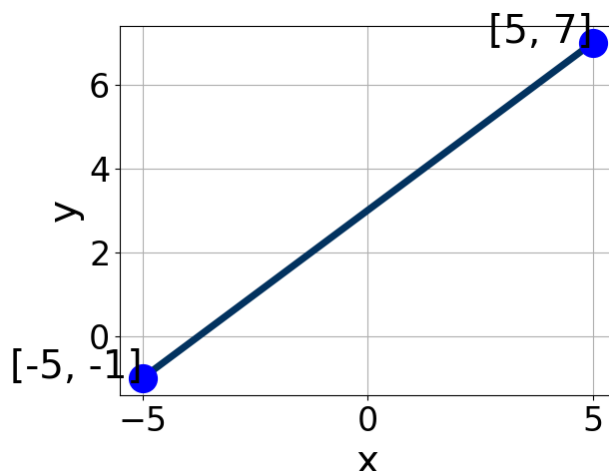
A. $A \in [-3.1, 0.9]$, $B \in [-3, -0.4]$, and $C \in [-8, -1]$

B. $A \in [-7.1, -2.2]$, $B \in [4.9, 6.3]$, and $C \in [10, 18]$

C. $A \in [0.7, 7.4]$, $B \in [-7.4, -2.9]$, and $C \in [-18, -13]$

D. $A \in [-3.1, 0.9]$, $B \in [0.1, 2.7]$, and $C \in [-1, 4]$

E. $A \in [0.7, 7.4]$, $B \in [4.9, 6.3]$, and $C \in [10, 18]$

---

17. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{5x+6}{2} - \frac{7x+4}{3} = \frac{-4x-4}{7}$$

A. $x \in [-7.26, -6.33]$

B. $x \in [-3.47, -2.8]$

C. $x \in [-1.27, -0.3]$
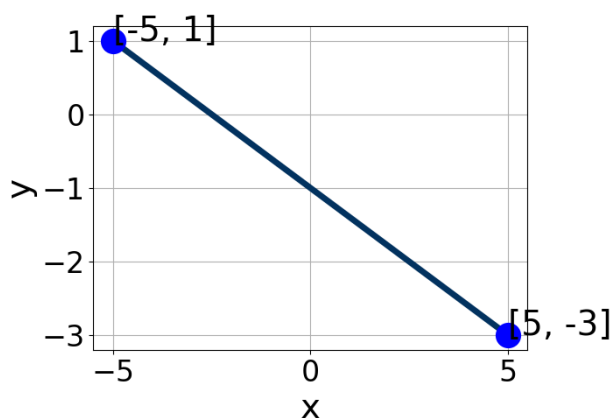
D. $x \in [-8.52, -7.79]$

E. There are no real solutions.

---

18. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{-7x+8}{2} - \frac{-5x-7}{8} = \frac{-6x+3}{5}$$

A. $x \in [-2.9, -0.5]$

B. $x \in [6.7, 7.5]$

C. $x \in [1.2, 1.8]$

D. $x \in [2.4, 3]$

E. There are no real solutions.

---

19. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.

A. $A \in [-2.53, -1.94], \quad B \in [-5.7, -3.7],$ and $\quad C \in [4.46, 6.57]$

B. $A \in [-0.18, 1.68], \quad B \in [-0.5, 2.4],$ and $\quad C \in [-2.19, -0.77]$

C. $A \in [-0.18, 1.68], \quad B \in [-3.2, -0.3],$ and $\quad C \in [0.79, 1.05]$

D. $A \in [1.39, 2.92], \quad B \in [-5.7, -3.7],$ and $\quad C \in [4.46, 6.57]$

E. $A \in [1.39, 2.92], \quad B \in [4.8, 5.4],$ and $\quad C \in [-5.32, -3.7]$

---

20. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Parallel to $3x + 7y = 8$ and passing through the point $(-5, 7)$.

A. $m \in [-0.99, 0.22] \quad b \in [-4.86, -1.86]$

B. $m \in [-0.99, 0.22] \quad b \in [-0.14, 5.86]$

C. $m \in [-3.3, -1.72] \quad b \in [-0.14, 5.86]$

   D. $m \in [-0.99, 0.22]$ $b \in [12, 16]$

   E. $m \in [-0.39, 0.98]$ $b \in [9.14, 10.14]$

---

21. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals that contain m and b.

$$(-7, -2) \text{ and } (-10, 8)$$

   A. $m \in [3.33, 4.33]$ $b \in [36.33, 45.33]$

   B. $m \in [-7.33, 2.67]$ $b \in [18, 20]$

   C. $m \in [-7.33, 2.67]$ $b \in [18.33, 31.33]$

   D. $m \in [-7.33, 2.67]$ $b \in [-28.33, -23.33]$

   E. $m \in [-7.33, 2.67]$ $b \in [1, 7]$

---

22. Solve the equation below. Then, choose the interval that contains the solution.
$$-8(-18x + 9) = -3(10x - 16)$$

   A. $x \in [0.66, 0.74]$

   B. $x \in [0.08, 0.16]$

   C. $x \in [0.18, 0.26]$

   D. $x \in [-0.16, -0.11]$

   E. There are no real solutions.

---

23. Solve the equation below. Then, choose the interval that contains the solution.
$$-6(18x + 2) = -10(5x + 17)$$

   A. $x \in [-1.74, -0.02]$

   B. $x \in [2.73, 3.93]$

C. $x \in [-3.5, -2.9]$

D. $x \in [1.45, 3.12]$

E. There are no real solutions.

---

24. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals that contain m and b.

$$(-8, -4) \text{ and } (4, 4)$$

A. $m \in [0.3, 3.3]$ $b \in [-0.77, 1.26]$

B. $m \in [0.3, 3.3]$ $b \in [3.59, 4.14]$

C. $m \in [0.3, 3.3]$ $b \in [0.04, 1.6]$

D. $m \in [-2.1, -0.3]$ $b \in [6.35, 6.99]$

E. $m \in [0.3, 3.3]$ $b \in [-1.61, -0.27]$

---

25. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Perpendicular to $4x - 5y = 7$ and passing through the point $(-8, 4)$.

A. $m \in [-2.28, -1.2]$ $b \in [12, 13]$

B. $m \in [-0.19, 1.43]$ $b \in [14, 16]$

C. $m \in [-2.28, -1.2]$ $b \in [-13, -5]$

D. $m \in [-2.28, -1.2]$ $b \in [3, 8]$

E. $m \in [-1.11, 0.29]$ $b \in [-13, -5]$

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26. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain A, B, and C.
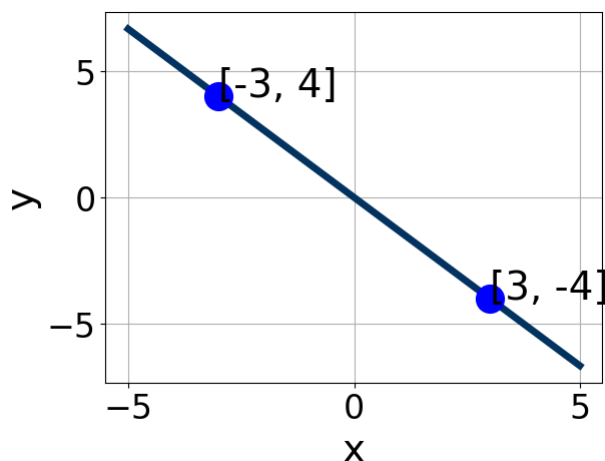
A. $A \in [-5.1, -1.8]$, $B \in [-4.02, -2.14]$, and $C \in [-6, 2]$

B. $A \in [-0.5, 2.4]$, $B \in [0.14, 2.7]$, and $C \in [-6, 2]$

C. $A \in [2.8, 6.2]$, $B \in [-4.02, -2.14]$, and $C \in [-6, 2]$

D. $A \in [-0.5, 2.4]$, $B \in [-1.95, 0.43]$, and $C \in [-6, 2]$

E. $A \in [2.8, 6.2]$, $B \in [2.21, 3.98]$, and $C \in [-6, 2]$

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27. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{-5x - 4}{7} - \frac{-3x + 8}{3} = \frac{6x - 9}{8}$$

A. $x \in [-5.2, -3.2]$

B. $x \in [-1.7, 0.7]$

C. $x \in [-7.3, -5.8]$

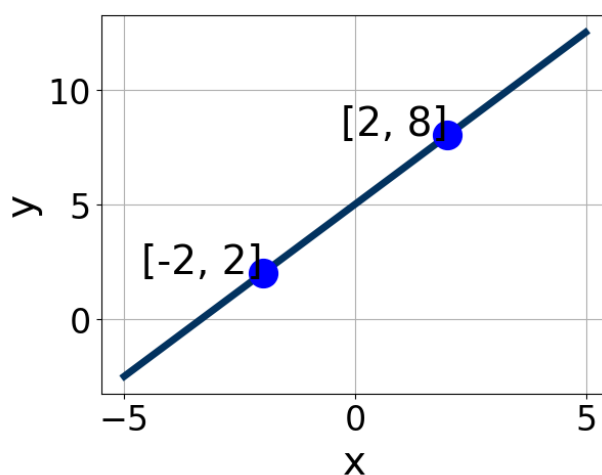D. $x \in [5.9, 7.5]$

E. There are no real solutions.

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28. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{-5x + 3}{5} - \frac{-9x + 9}{7} = \frac{9x + 9}{8}$$

A. $x \in [-2.3, -0.9]$

B. $x \in [-18.2, -17.2]$

C. $x \in [0.4, 1.8]$

D. $x \in [-2, 0.1]$

E. There are no real solutions.

---

29. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.

A. $A \in [-5.4, -2.4], \quad B \in [1.11, 3.02], \quad$ and $\quad C \in [6, 11]$

B. $A \in [-2, -1.4], \quad B \in [-1.36, -0.52], \quad$ and $\quad C \in [-6, -3]$

C. $A \in [-2, -1.4], \quad B \in [0.67, 1.45], \quad$ and $\quad C \in [4, 7]$

D. $A \in [1.6, 5.1], \quad B \in [1.11, 3.02], \quad$ and $\quad C \in [6, 11]$

E. $A \in [1.6, 5.1], \quad B \in [-2.35, -1.69], \quad$ and $\quad C \in [-14, -7]$

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30. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Perpendicular to $6x - 5y = 12$ and passing through the point $(9, 5)$.

A. $m \in [-1.37, -1.11] \quad b \in [11.5, 14.5]$

B. $m \in [0.34, 1.39] \quad b \in [-3.5, -1.5]$

C. $m \in [-0.93, -0.78]$ $b \in [-12.5, -11.5]$

D. $m \in [-0.93, -0.78]$ $b \in [-5, -3]$

E. $m \in [-0.93, -0.78]$ $b \in [11.5, 14.5]$